

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see from PCT/ISA/210 (page 2)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/DE2004/001388

International filing date (day/month/year)
1/7/2004

Priority date (day/month/year)
6/8/2003

International Patent Classification (IPC) or both national classification and IPC
H04L5/14, H04L25/49

Applicant

ROBERT BOSCH GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/
European Patent Office Rijswijk

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EV 321879150WS

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/DE2004/001388

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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International application No.
PCT/DE2004/001388

Box No. II Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rules 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rules 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/DE2004/001388

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	7,8,13,14	YES
	Claims	1-6,9-12	NO
Inventive step (IS)	Claims		YES
	Claims	1-14	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations:

see supplementary page

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY
(SUPPLEMENTARY SHEET)

International File No. PCT/DE2004/001388

AP20 Res'd PCT/PTO 03 FEB 2006

Re Point V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

- D1: DE 199 50 655 A (BOSCH GMBH ROBERT; TELEFUNKEN MICROELECTRON) May 10, 2001 (2001-05-10)
- D2: US-A-6,006,143 (WELSKOPF FRED ET AL) December 21, 1999 (1999-12-21)

V.1 Preliminary remarks in regard to clarity:

The expression "current-coding (and/or voltage-coding) of information occurring on the peripheral unit due to the triggering thereof," used in Claims 1 and 6, is unclear and leaves the reader uncertain about the meaning of this technical feature. This results in the definition of the object of these claims not being clear (Article 6 PCT).

It is assumed that the meaning is that the peripheral unit produces current-coded (and/or voltage-coded) information during the triggering.

- V.2** The present application does not fulfill the requirements of Article 33 (1) PCT, because the object of Claim 1 is not novel as defined by Article 33 (2) PCT.

Document D1 discloses (the references in parentheses relate to this document): a

method for bidirectional (column 3, line 38-42) single-wire data transmission (column 3, lines 51-54 and column 4, lines 53-55. The central unit and the modules 2 use the bus line 7 as the single wire for bidirectional data transmission) of data information between an electronic control unit (Figure 1, central unit) and at least one peripheral unit (Figure 1, modules 2) having the following steps:

- applying a predefined constant voltage (column 1, lines 1-10) to a driver device of the electronic control unit (column 3, lines 51-64) to produce voltage-coded information (column 3, lines 3-12);
- transmitting the voltage-coded information from the driver device of the electronic control unit to a driver device of the peripheral unit via a single-wire line (column 3, lines 51-54; column 4, lines 19-21);
- triggering and powering at least the driver logic of the driver device and/or the communication logic of the peripheral unit through the current flow generated by the applied voltage (column 4, lines 19-35. The signals received by the bus line 7 trigger and power the control electronics of the modules 2. It is implicit that the voltage signals generate corresponding current flows);
- current-coding information occurring on the peripheral unit due to the triggering thereof; and (column 4, lines 37-44: The control information of the central unit activates the transmitter of the modules 2. Column 4, line 54 - column 5, line 10: The information is coded using voltage source U3. It is implicit that a voltage coding simultaneously provides a current coding.)

- uploading the current-coded information from the driver device of the peripheral unit to the driver device of the electronic control unit via the single-wire line during the triggering of the peripheral unit (column 4, lines 41-46).

The object of Claim 1 is therefore not novel.

V.3 The identical reasoning applies correspondingly for independent Claims 4, 11, and 12. The object of Claims 4, 11, and 12 is therefore not novel.

V.4 Dependent claims 2 through 3, 5 through 10, and 13 through 14 contain no features which, in combination with the features of any claim to which they refer, fulfill the requirements of the PCT in regard to novelty and/or inventive step, see Documents D1 and D2 and the corresponding citations specified in the search report.